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Improvements in vertical blinds

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ABSTRACT

- 5 A fabric cover for attachment to a blind which includes a plurality of vertically suspended blades, the cover including a sheet of fabric and means for attaching a top edge of the fabric to the tops of the blades such that the top edge of the fabric extends along a path which includes each face of the blades and gaps between adjacent blades.

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THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A fabric cover for attachment to a blind which includes a plurality of vertically
suspended blades, the cover including a sheet of fabric and means for attaching a top edge
5 of the fabric to the tops of the blades such that the top edge of the fabric extends along a
path which includes each face of the blades and gaps between adjacent blades.
2. A blind including a plurality of blades suspended from and thereof, a fabric cover
as claimed in claim 1, the top edge of which is affixed to the blades in such a way that the
10 blades are rotatable about their respective longitudinal axes.
3. A blind as claimed in claim 1 or 2 wherein the fabric comprises semi-transparent
material such as voile or the like.

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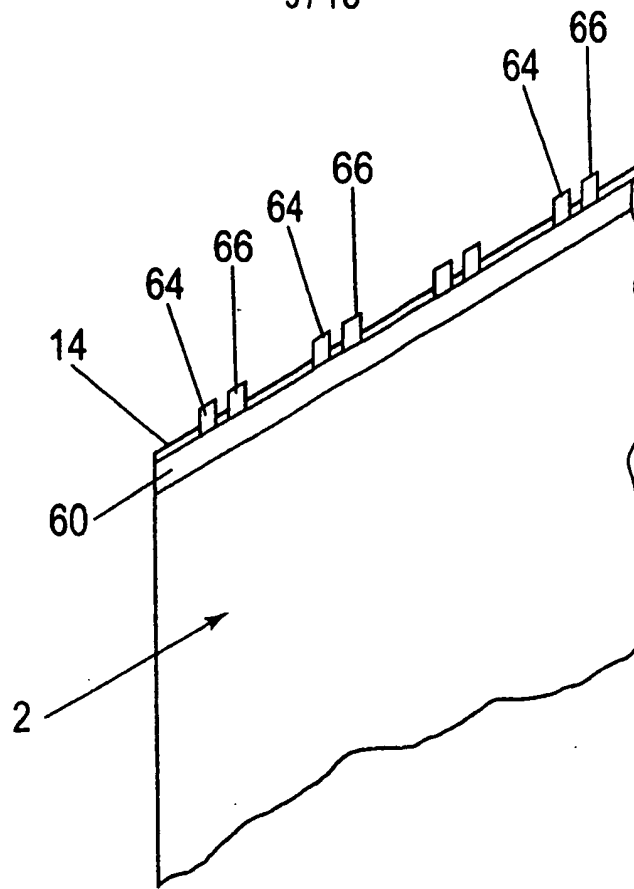


FIG 12

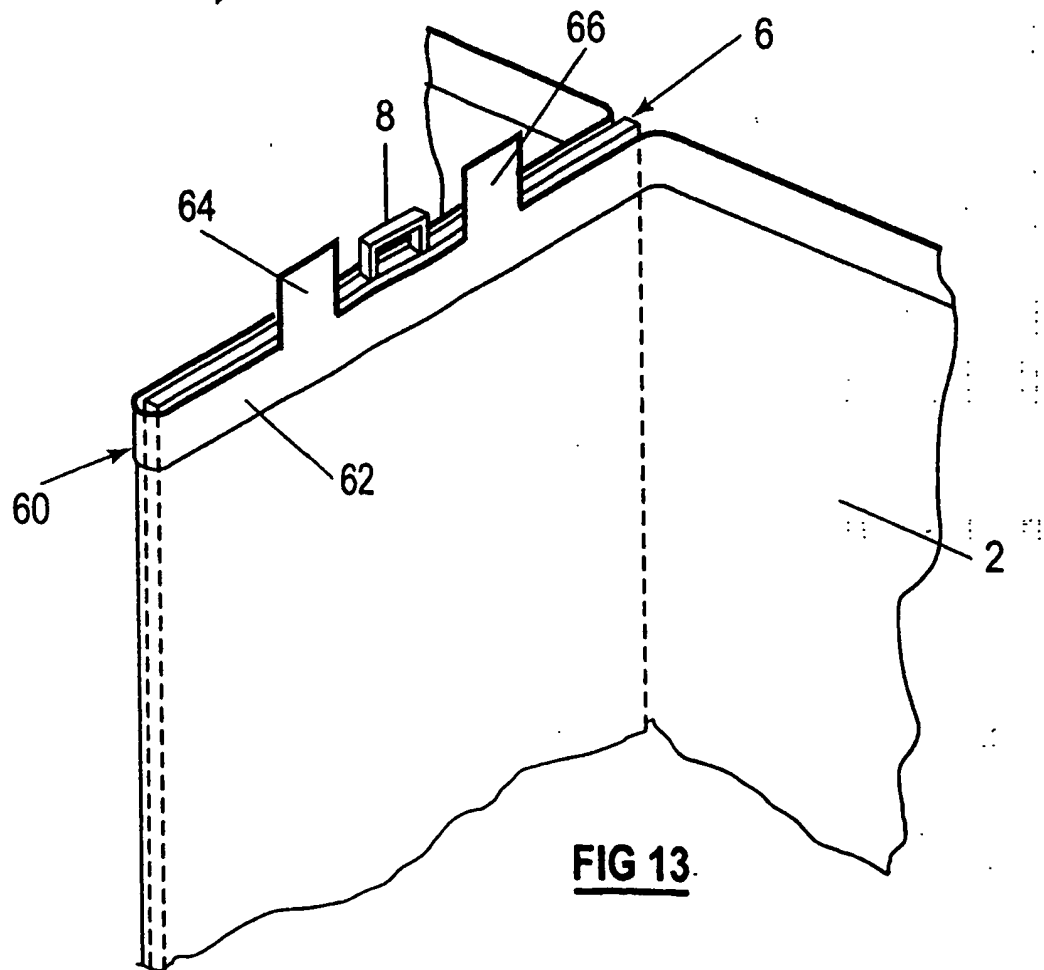


FIG 13

A U S T R A L I A

Patents Act 1990

**PETTY PATENT SPECIFICATION
(ORIGINAL)**

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Petty Patent specification for the invention entitled:

Improvements in Vertical Blinds

The following statement is a full description of this invention, including the best method of performing it known to us:

IMPROVEMENTS IN VERTICAL BLINDS

This invention relates to improvements in and relating to vertical blinds:

5

A typical vertical blind assembly includes a plurality of vertically extending blades, each of which has a loop or opening on its top edge which enables the blade to be suspended from a top rail. The rail has associated with it an operating mechanism which effects simultaneous rotation of all of the blades about vertical axes. Normally the
10 operating mechanism can be used to move all of the blades (when they are in their open positions) along the rail so that they are clear of the window or doorway.

The rotational position of the blades can be used to select the amount of light entering a room through the window. However, when the blades are fully or partly open,
15 the interior of the room would be visible from the outside. In other words, vertical blinds do not provide privacy when they are fully or partly opened.

An object of the invention is to provide a fabric cover which can be used in association with vertical blinds in order to provide privacy.

20

Another object of the invention is to provide a vertical blind assembly which functions like a vertical blind but provides privacy when the blades are fully or partly opened.

25

Another object of the invention is to provide a collar for use in attaching a curtain to the blade of a vertical blind.

According to the present invention there is provided a fabric cover for attachment to a blind which includes a plurality of vertically suspended blades, the cover including a
30 sheet of fabric and means for attaching a top edge of the fabric to the tops of the blades

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such that the top edge of the fabric extends along a path which includes each face of the blades and gaps between adjacent blades.

Preferably, the fabric comprises semi-transparent material such as voile or the like.

5

The invention also provides a blind including a plurality of blades suspended from one end thereof, a curtain having a top edge which is affixed to the blades in such a way that it permits the blades to be rotatable about respective longitudinal axes.

10 Preferably the top edge of the curtain extends along each face of the blades and spans the gaps between blades.

Preferably further, when the blades are fully open, that is to say they are located in spaced parallel planes, the curtain extends between adjacent blades and most preferably is
15 located in a plane which includes adjacent elongated edges of the blades.

The invention also provides a collar for use in connecting a curtain to a blade of a vertical blind, the blade having a suspension loop or slotted tab projecting upwardly from its top edge, the collar being formed from sheet material and having a fold line which
20 defines first and second panels which in use overlie respective side faces of the blade, an opening for permitting the suspension hook to pass therethrough, and fastening means for use in fastening a curtain to the collar.

Preferably the fastening means includes one part of a loop and hook fastening
25 means such as Velcro. Preferably the part is the hook part of the fastening means.

The invention will now be further described with reference to the accompanying drawings, in which:

Figure 1 is a side view of a curtain of the invention;

30 Figure 2 is a plan view of a fastening collar;

Figure 3 is a perspective view of a fastening collar;

Figure 4 is a fragmentary view of the tops of some blades of a vertical blind;

Figure 5 shows the tops of the blades having the fastening collar coupled thereto;

Figure 6 shows the top edge of the curtain connected to the fastening collars;

Figure 7 is a plan view of the tops of the blades;

5 Figure 8 is a perspective view of the bottoms of the blades with the curtain coupled thereto;

Figure 9 is a schematic sectional view through the bottoms of the blades and curtain;

Figure 10 is a schematic view of a novel form of loop and hook fastening tape;

10 Figure 11 is another embodiment of the fastening tape;

Figure 12 schematically illustrates the fastening tape affixed to the top edge of a curtain;

Figure 13 is a schematic view showing the tape adjacent to a blade; and

15 Figure 14 is a schematic cross-sectional view showing the tape in its operative position.

Figure 1 diagrammatically shows a curtain 2 which can be used in a vertical blind assembly 4 which includes a plurality of vertically suspended blades 6, as diagrammatically illustrated in Figure 4. Figure 4 omits the guide rail and operating mechanism because these are of known form and need not be described in detail. Each of the blades 6 has a suspension loop 8 on its top edge 10. The loops 8 cooperate with hooks of the operating mechanism in such a way that each of the blades can be simultaneously rotated about longitudinal axes 12 which pass through the centres of the loops 8, the arrangement being such that in a fully opened position, as shown in Figure 4, each of the blades 6 is in a spaced parallel plane which is perpendicular to the suspension rail and a fully closed condition when the blades 6 are co-planar. Normally the operating mechanism permits the blade 6 to be moved along the rail to one end thereof so that they can be completely withdrawn from the window.

30 Referring again to Figure 1, it will be seen that the curtain 2 is in the form of a rectangular sheet of fabric having a top edge 14, bottom edge 16 and side edges 18 and 20.

- 5 -

A strip 22 of fastening material is sewn adjacent to the top edge 14 of the curtain. The strip 22 preferably comprises the hook part of a hook and loop fastening system such as Velcro. The fabric of the curtain preferably comprises a semi-transparent material such as a voile made from terylene or the like, lace, or other lightweight material which permits
5 light to pass therethrough but provides privacy to the interior of the room where the blind is used.

Figures 2 and 3 diagrammatically illustrate a collar 24 which can be used to couple the curtain 2 to the blades 6 as described below. The collar comprises a rectangle of
10 flexible sheet material which is provided with a centre fold line 26 to define first and second panels 28 and 30. An opening 32 is formed at the centre of the fold line 26, as shown. First and second strips 34 and 36 of fastening material are provided on the panels 28 and 30. The strips 34 and 36 preferably comprise the loops of a loop and hook fastening material such as Velcro. The sheet material from which the collar 24 is made is
15 preferably the same material as is used to make the blades 6 of the blind 4. This material normally is PVC coated polyester fabric. Figure 3 shows the collar 24 after it has been folded along fold line 26 so that the panels 28 and 30 are somewhat in a V-shape configuration.

20 Figure 5 shows the collar 24 mounted on the top edges 10 of the blades 6. It will be seen that the first and second panels 28 and 30 overlie respective faces of the blades 6 and that the hooks of the strips 34 and 36 face outwardly relative to the faces of the blade. The length of the collar 24 is chosen so as to be the same as the widths of the blades 6. Normally the blades 6 are in the range of 80mm to 130mm in width. Typical widths
25 include 89mm, 100mm and 127mm so the collars would be made in lengths corresponding to these widths. It will be seen that the loops 8 project through the openings 32 in the collars so that the loops 8 can be coupled to the hooks of the operating mechanism in the usual way.

30 The collars 24 permit the curtain 2 to be affixed to the vertical blind 4. Figures 6 to 9 illustrate the preferred manner in which this is done. The mounting technique is very

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straightforward. The strip 22 at the top edge 14 of the curtain is coupled to the complementary strips 34 and 36 of each of the collars 24. This is diagrammatically illustrated in Figure 6 where it can be seen that the top edge 14 of the curtain follows a path which includes first and second face portions 38 and 40 joined by end portions 41 and intermediate portions 42 which extend in the gap between adjacent blades. It is normally preferred that the end portions 41 face inwardly of the room, that is away from the glass pane 44 of the window. Accordingly, the intermediate portions 42 lie closer to the pane 44 of the window. Preferably, the intermediate portions 42 are co-planar and lie in a plane which includes the vertical edges 46 of the blades which are adjacent to the pane 44 when the blades are in their fully opened positions, as shown in Figure 6.

Figures 8 and 9 diagrammatically illustrate the preferred manner in which the curtain 2 is coupled to the lower ends of the blades. It will be seen that adjacent intermediate portions 42 of the curtain are provided with tack stitches 48 just above the bottom edge 16 of the curtain. The tack stitches 48 can be located at a distance in the range of 20mm to 60mm and preferably about 50mm above the bottom edge 16. The tack stitches 48 define pockets 50 into which the lower edge parts 52 of the blade 6 can be placed and retained. This provides a simple and effective way of making sure that the shape of the curtain 2 conforms generally to the shape of the blades from top to bottom. Alternatively, the tack stitches 48 may be omitted and the curtain permitted to drape from its top edge.

It will be appreciated that the provision of the curtain 2 coupled to the blades 6 provides a simple yet effective way in which privacy can be provided in a vertical blind whilst the blind is fully or partly opened. It will be further appreciated that the movement of the blades is essentially unhampered by the coupling thereto of the curtain 2. Thus the operating mechanism can be used to rotate the blades from fully open to fully closed positions with the curtain 2 simply following the movement of the blades. Further, the blades can be moved to the end of the suspension rail so that they are clear of the window and, again, the curtain 2 will simply move with the blades.

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In the embodiments described above, hook and loop fastening means are provided to connect the top edge of the curtain to the blades. Other techniques could, however, be used such as press studs, clips, stitching or the like.

- 5 It will also be appreciated that the curtain 2 can readily be removed by a user for cleaning of the curtain and/or blades.

Figures 10 to 14 illustrate an alternative technique for fixing the curtain to the blades. In this arrangement the collars 24 are not required and a novel strip 60 of loop and
10 hook fastener is utilised. The strip 60 is constructed as follows. It has a continuous band 62 of the loop fastener integrally formed with a pair of laterally extending tabs 64 and 66 of the hook fastener. The hook fastener of the tabs is located on the opposite side to the loop fastener of the band 62. This is diagrammatically shown in Figure 10. Figure 11 illustrates a similar tape made for a difference size of blade.

- 15 Figure 12 diagrammatically shows the strip 60 sewn to the top edge 14 of the curtain 2. It will be seen that the band 62 extends along the top edge of the curtain with the tabs 64 and 66 projecting above the top edge 14.

- 20 Figure 13 diagrammatically illustrates the curtain 2 folded about one of the blades 6. It will be seen that the tabs 64 and 66 are located on opposite sides of the loop 8 which is used for suspending the blade. The connection of the curtain to the blade can be effected by folding the tab 64 and 66 downwardly so that they overlies the adjacent part of the band 62 on the other face of the blade, as diagrammatically shown in Figure 14. Because the
25 hook fastener on the tabs 64 and 66 are on the opposite face to the loops on the band 62, they will form a connection with the loop band 62 on the other face and provide a good connection of the curtain to the blade. Because the suspending loop 8 is located between the tabs 64 and 66, the curtain will hold its correct position relative to the blade. The alternative technique illustrated in Figures 10 to 14 eliminates the need for the collars 24
30 thus simplifying the manufacturing and mounting procedures.

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Many modifications will be apparent to those skilled in the art without departing from the spirit and scope of the invention.

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THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A fabric cover for attachment to a blind which includes a plurality of vertically suspended blades, the cover including a sheet of fabric and means for attaching a top edge
5 of the fabric to the tops of the blades such that the top edge of the fabric extends along a path which includes each face of the blades and gaps between adjacent blades.
2. A blind including a plurality of blades suspended from and thereof, a fabric cover as claimed in claim 1, the top edge of which is affixed to the blades in such a way that the
10 blades are rotatable about their respective longitudinal axes.
3. A blind as claimed in claim 1 or 2 wherein the fabric comprises semi-transparent material such as voile or the like.

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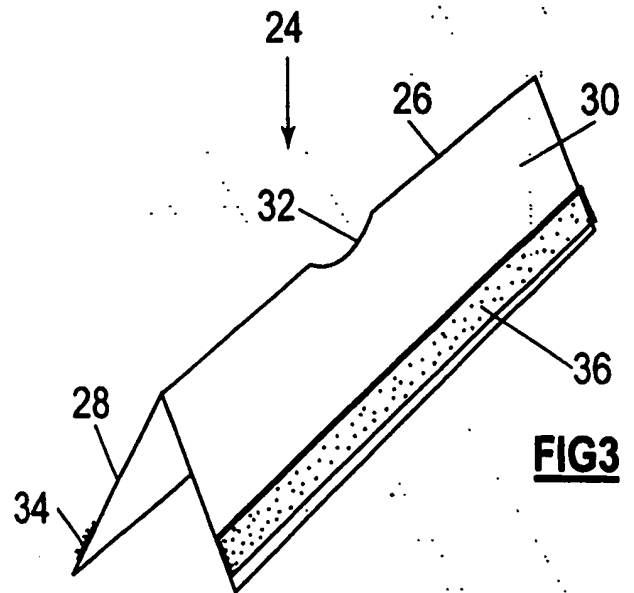
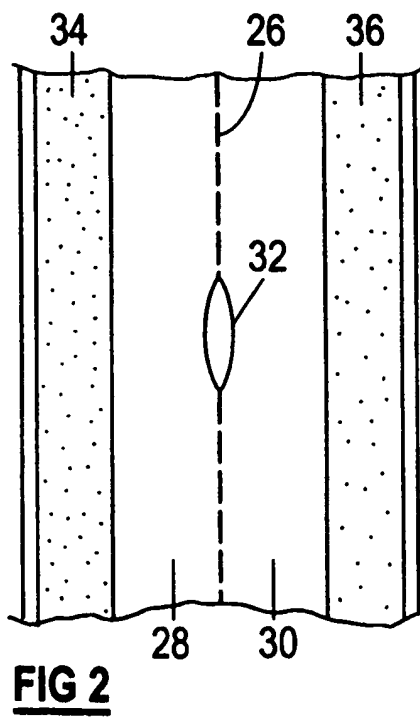
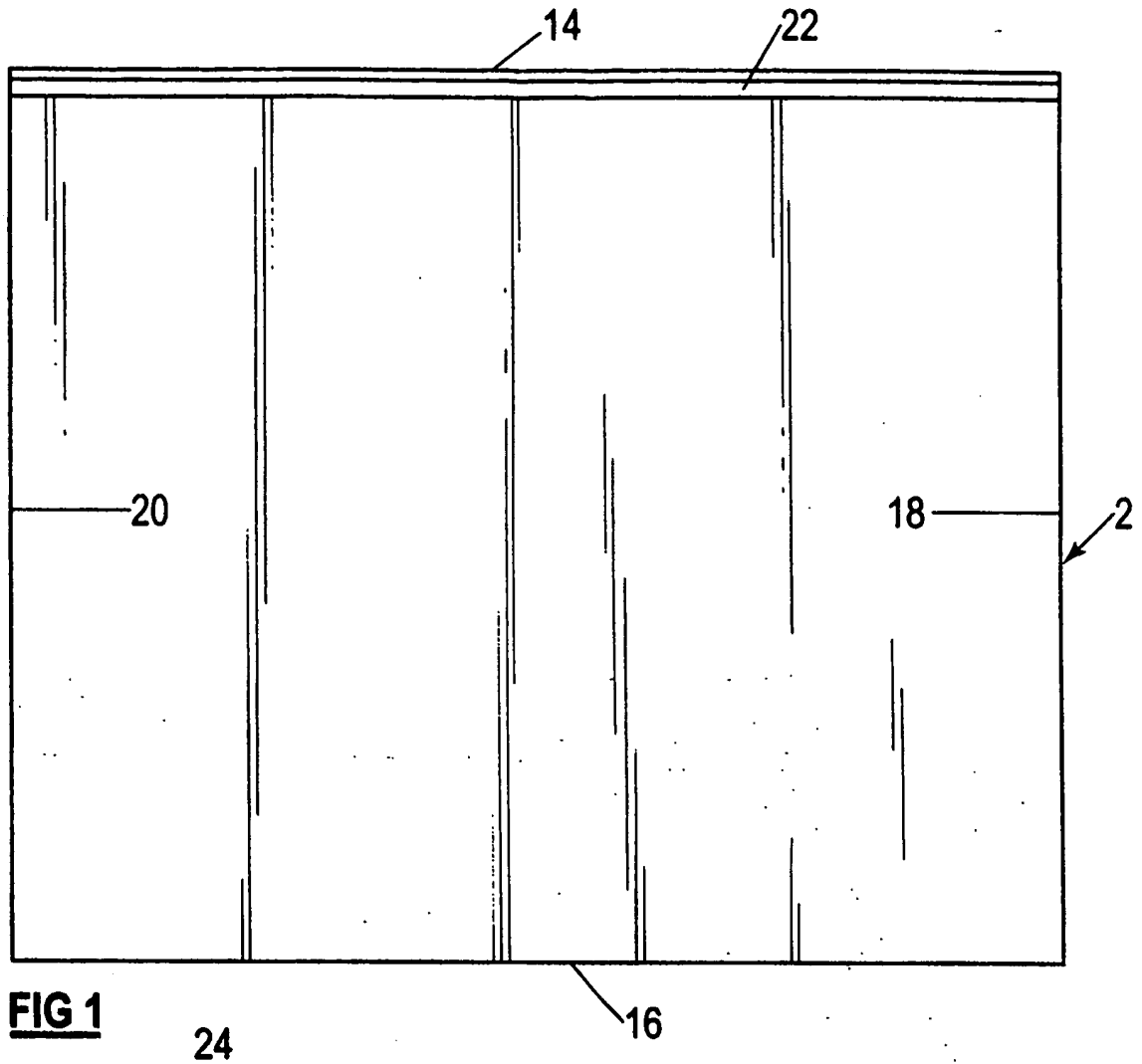
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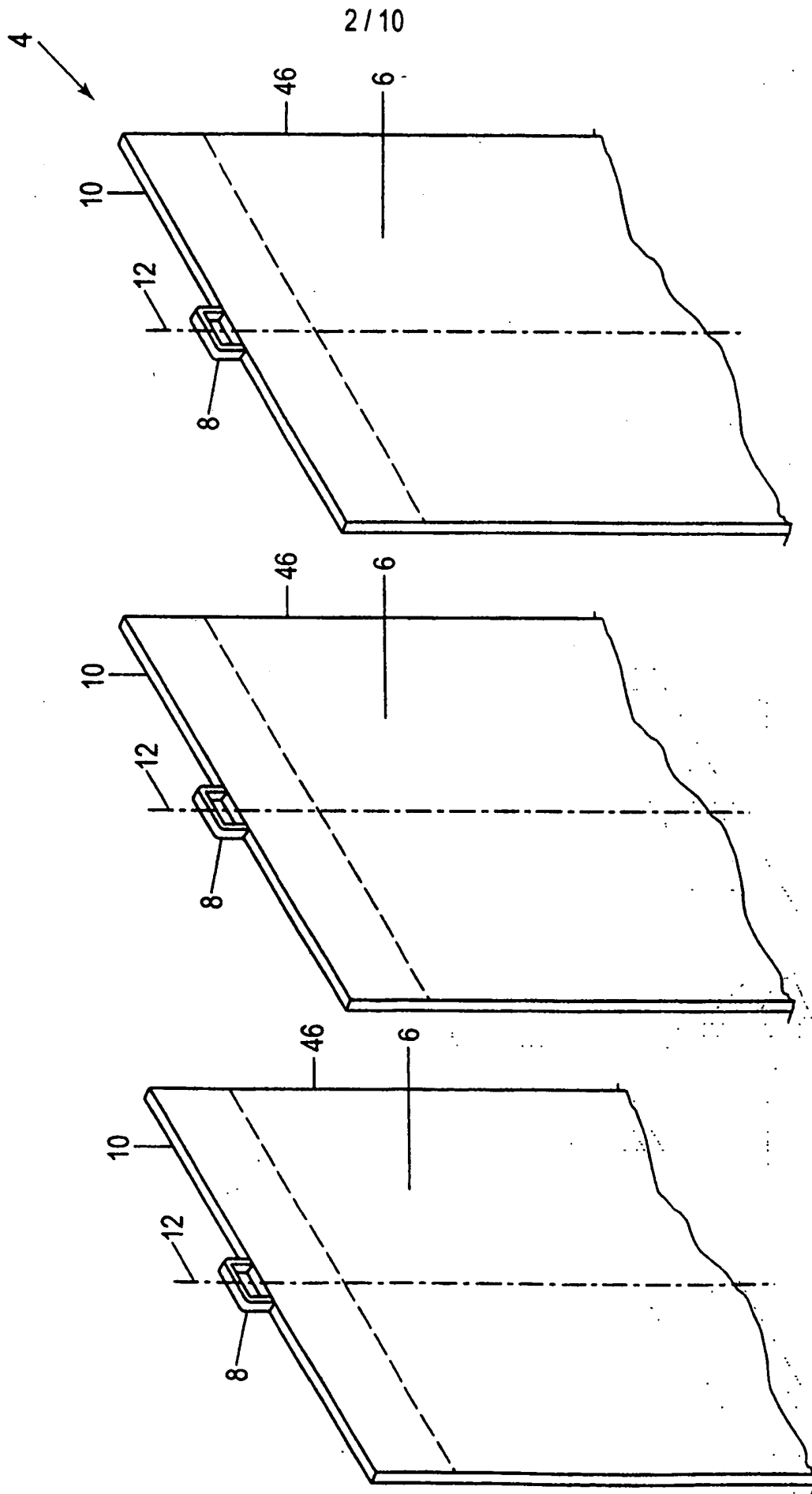


FIG 4

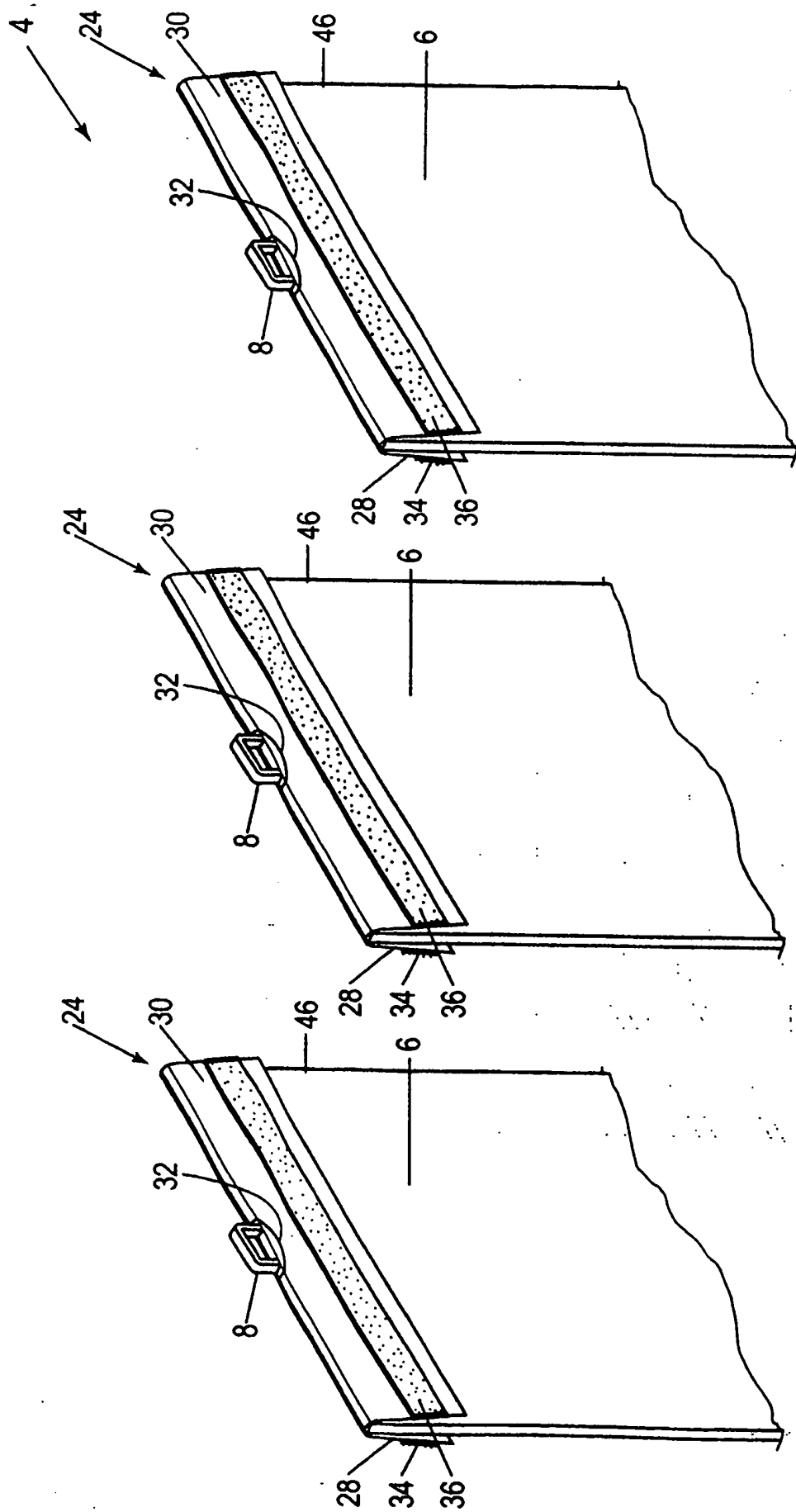
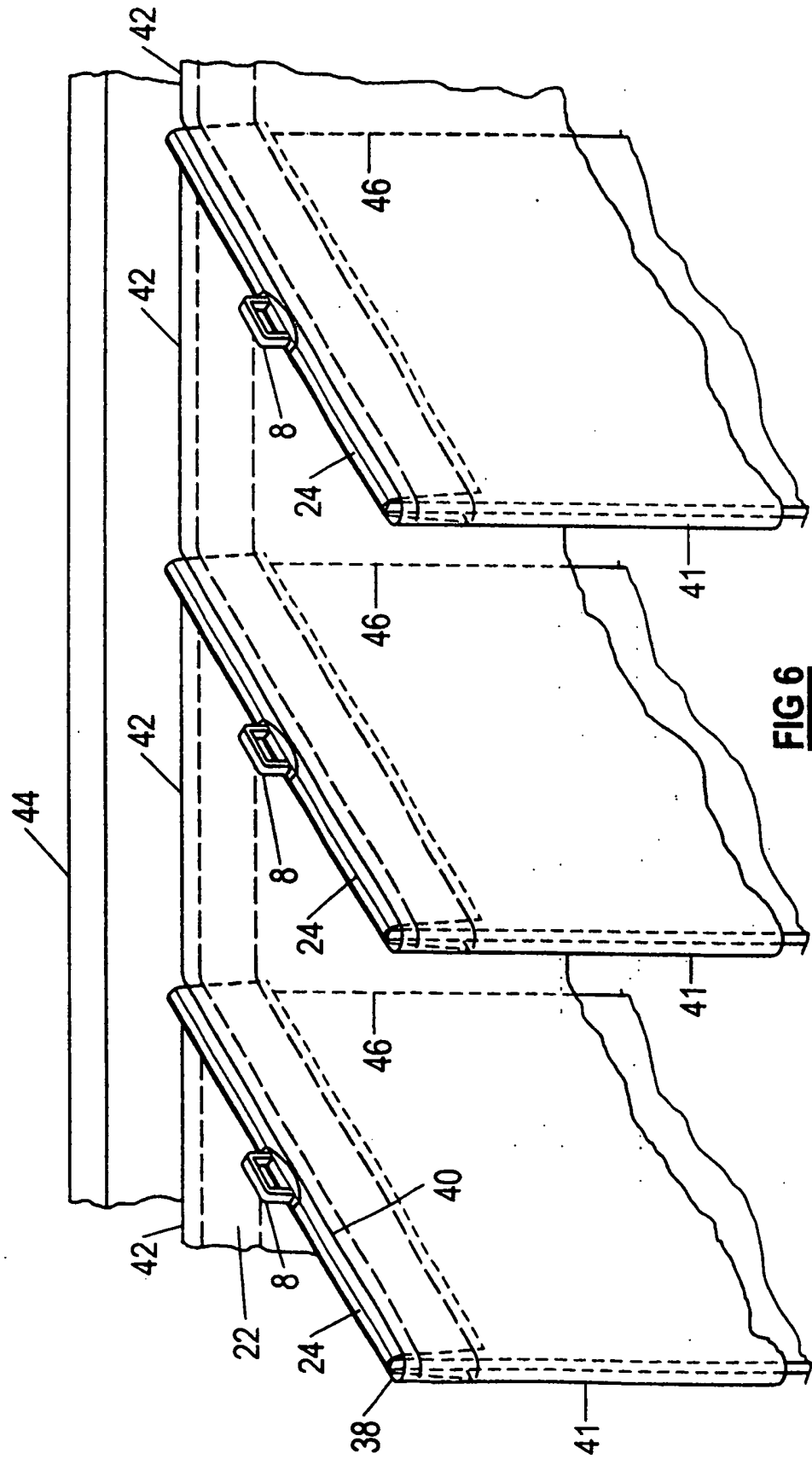
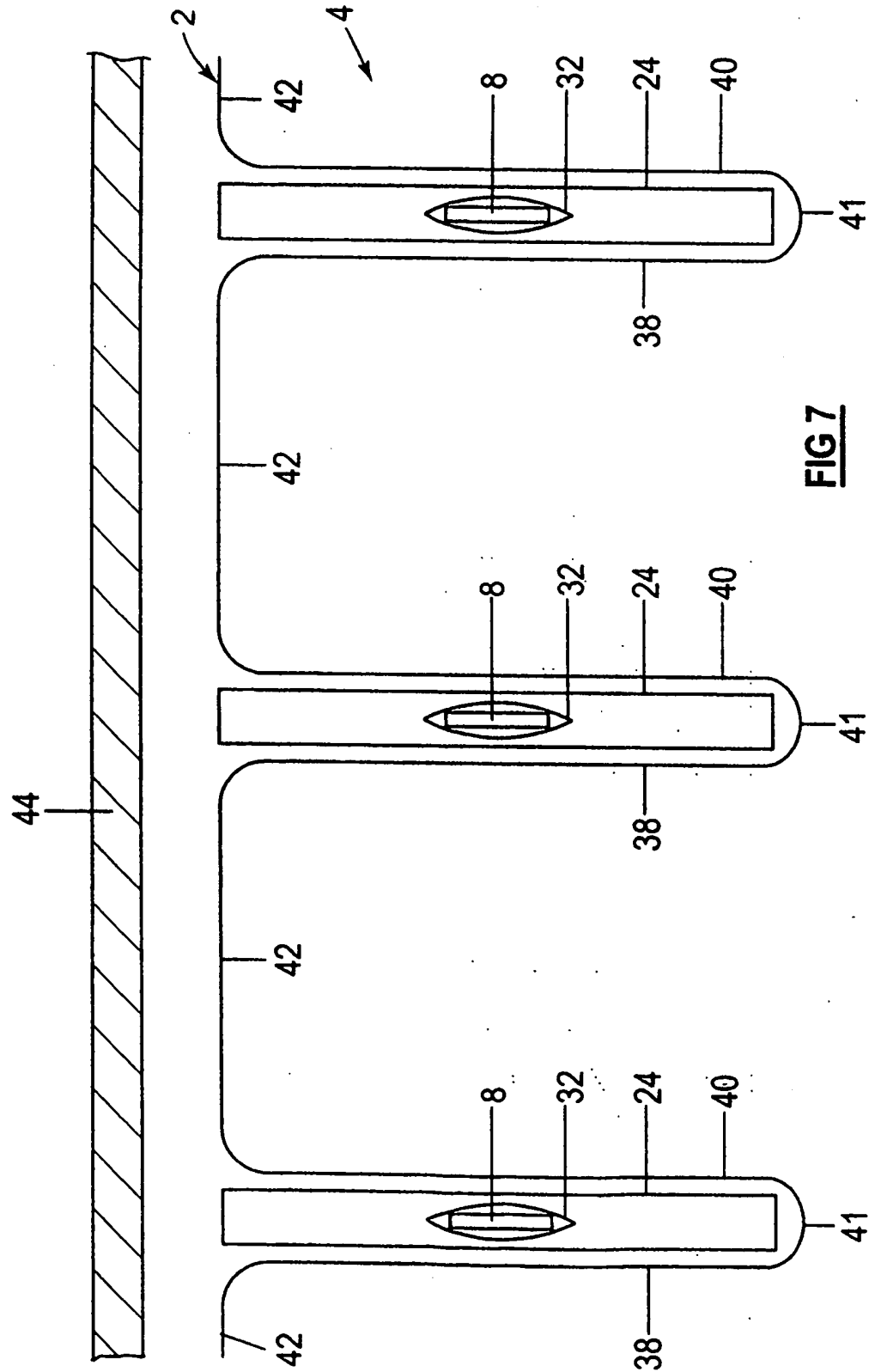


FIG 5





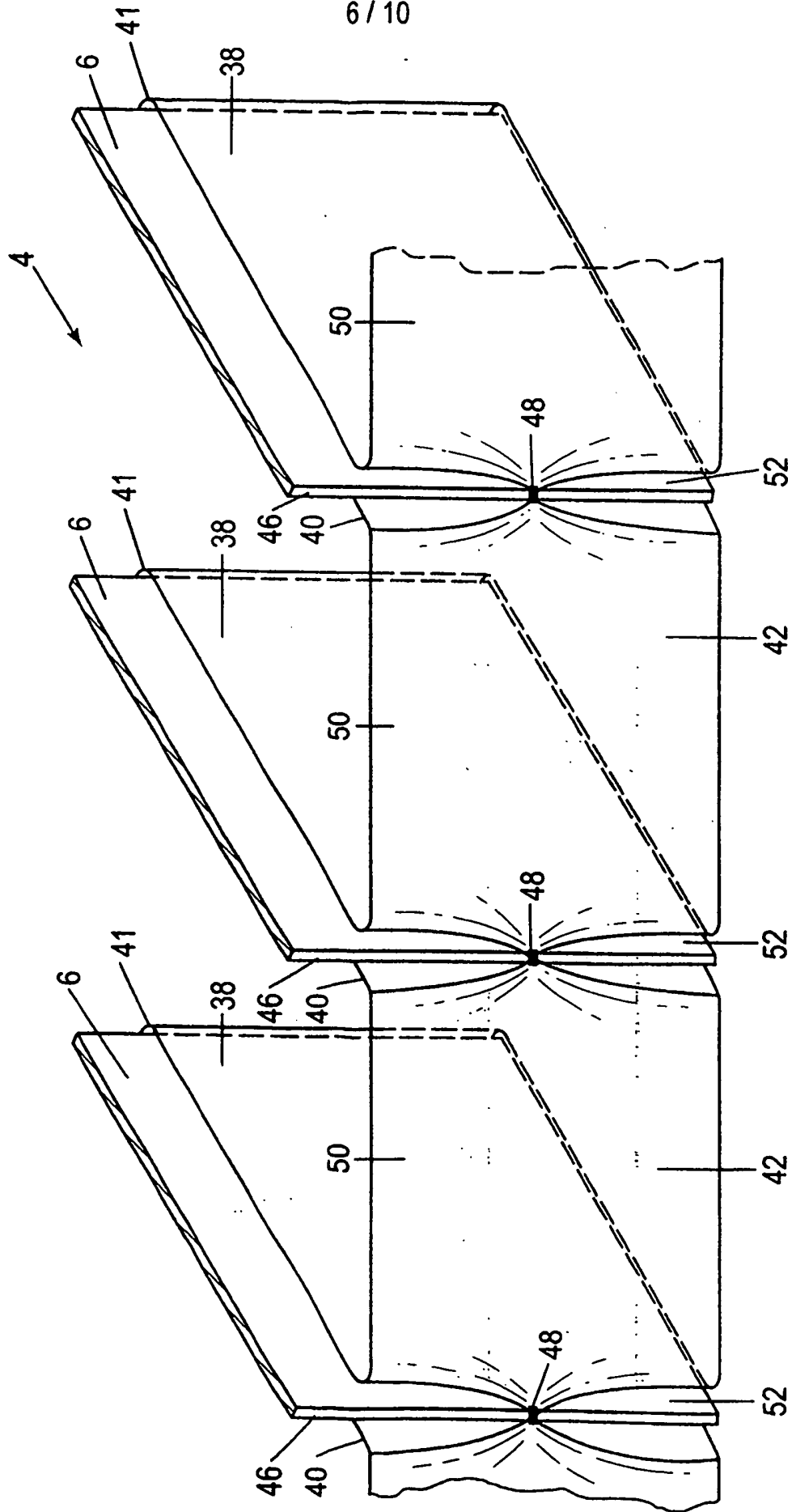
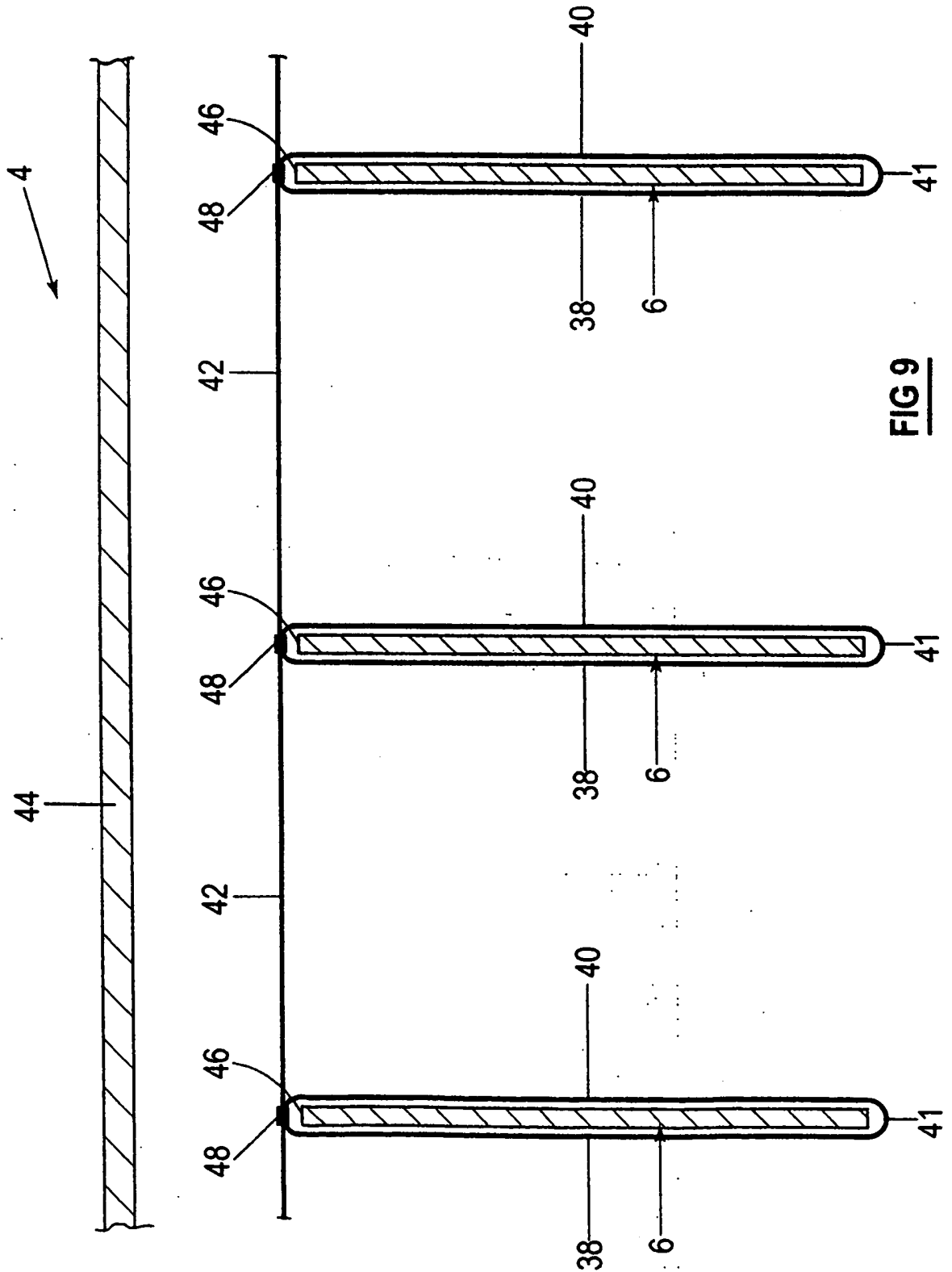


FIG 8



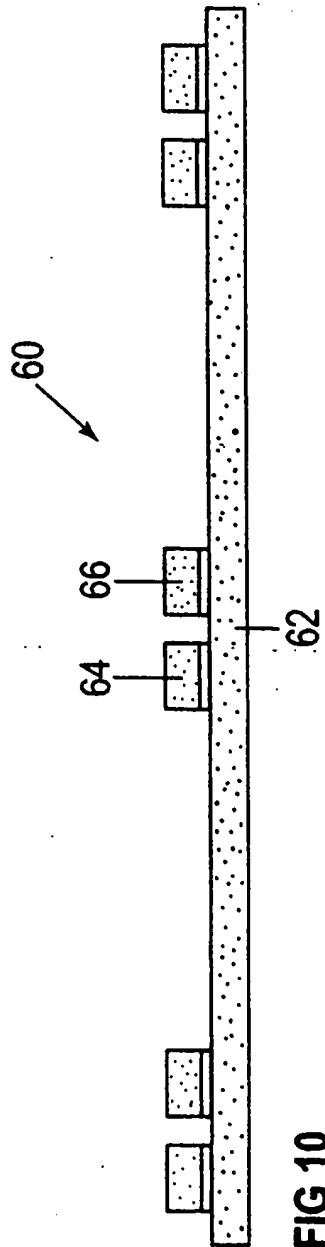


FIG 10

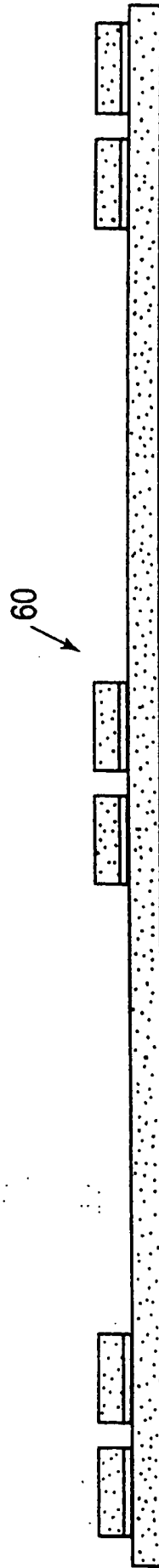


FIG 11

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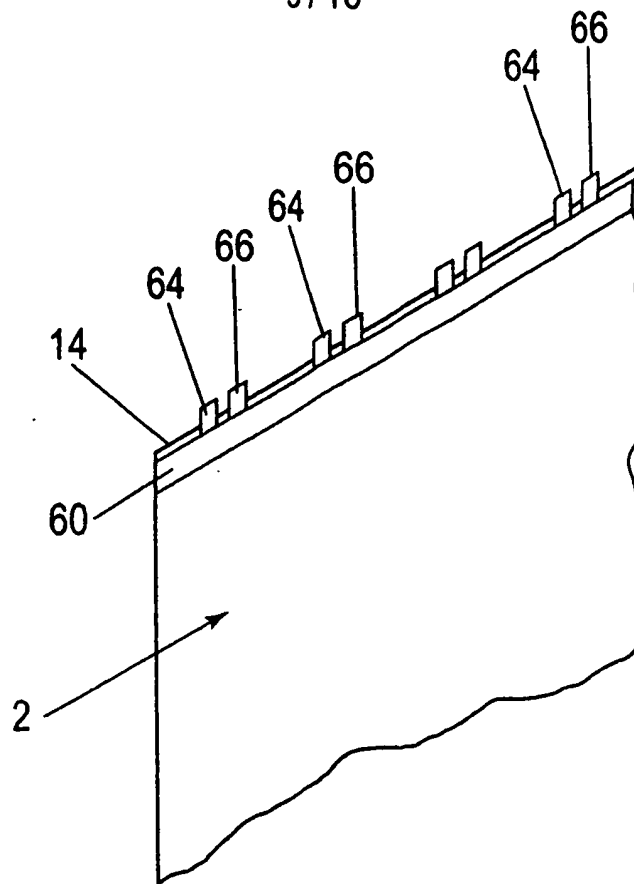


FIG 12

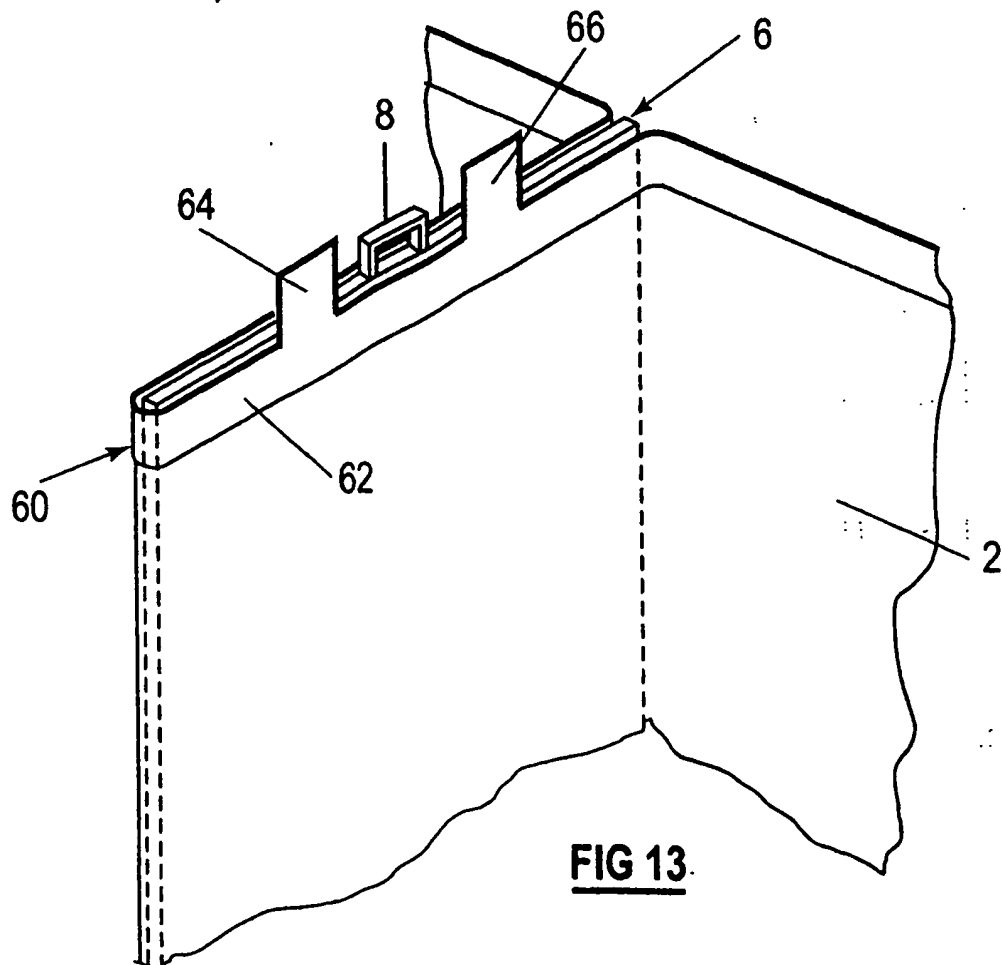


FIG 13

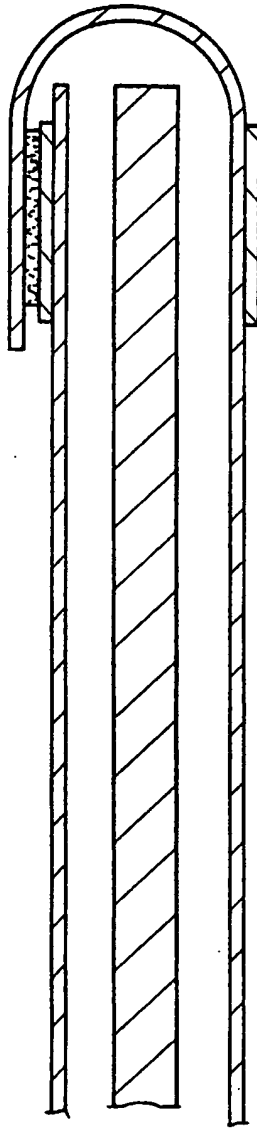


FIG 14